prises 2 spectral values, the code word referenced by the number 1 represents the first two spectral values. The length of this code word is relatively short, meaning that the values of the first two spectral values, i.e. of the two lowest frequency coefficients, occur relatively often. The code word with the number 2, on the other hand, is relatively long, meaning that the contributions of the third and fourth spectral coefficients in the coded audio signal are relatively infrequent, which is why they are coded with a relatively large number of bits. It can also be seen from Fig. 2 that the code words with the numbers 3, 4 and 5, which represent the spectral coefficients 5 and 6, 7 and 8, and 9 and 10, also occur relatively frequently, since the length of the individual code words is relatively short. Similar considerations apply to the code words with the numbers 6 - 10.

As has already been mentioned, it is clear from Fig. 2 that the Huffman code words for the coded spectral values are arranged in linearly ascending order in the bit stream from the point of view of the frequency in the case of a bit stream which is generated by a known coding device.

A big disadvantage of Huffman codes in the case of error-afflicted channels is the error propagation. If it is assumed e.g. that the code word number 2 in Fig. 2 is disturbed, there is a not insignificant probability that the length of this erroneous code word number 2 will also be changed. This thus differs from the correct length. If, in the example of Fig. 2, the length of the code word number 2 has been changed by a disturbance, it is no longer possible for a decoder to determine where the code words 3 - 10 start, i.e. almost the whole of the represented audio signal is affected. Thus all the other code words following the disturbed code word cannot be decoded properly either, since it is not known where these

code words start and since a false starting point was chosen because of the error.

As a solution to the problem of error propagation European patent No. 0612156 proposes that some of the code words of variable length should be arranged in a raster and the other code words should be assigned to the remaining gaps so that the start of a code word can be more easily identified without complete decoding or in the event of a faulty transmission.

The known method provides a partial remedy for error propagation by resorting the code words. A fixed place in the bit stream is reserved for some code words and the spaces which are left can be occupied by the remaining code words. This entails no extra bits, but prevents error propagation among the resorted code words in the event of an error.

The decisive parameter for the efficiency of the known method is how the raster is defined in practice, i.e. how many raster points are needed, the raster distance between the raster points, etc. However, European patent 0612156 does not go beyond the general proposition that a raster should be used to curtail error propagation; there are no details as to how the raster should be efficiently structured so as to achieve error-tolerant, and at the same time efficient, coding.

It is the object of the present invention to provide a concept for the error-tolerant and nevertheless efficient coding and decoding of an audio signal or a bit stream.

This object is achieved by a method for coding an audio signal according to claim 1 or 9, by a device for coding an audio signal according to claim 21 or 22, by a method for decoding a bit stream according to claim 23 or 24 and by a device for decoding a bit stream according to claim 25 or 26.

The present invention is based on the finding that the raster already proposed must be fashioned or occupied in a way that permits efficient coding/decoding as well as error-tolerant coding/decoding. Of prime importance here is the fact that the code words, which are obtained by an entropy coding in the form of a Huffman coding, are inherently of different lengths since the greatest coding gain results when the most frequent value to be coded has a code word of the shortest possible length assigned to it. On the other hand a value to be coded which occurs relatively infrequently, even though it has a relatively long code word assigned to it, results in an optimal amount of data viewed statistically. Code words obtained by a Huffman coding thus have different lengths per se.

According to a first aspect of the present invention so-called priority code words are placed at the raster points so that the start of the priority code words can be identified without fail by a decoder via the raster even if there is an error in the bit stream. Priority code words are code words which are psychoacoustically important. What this means is that the spectral values which are coded by so-called priority code words contribute substantially to the auditory sensation of a decoded audio signal. If the audio signal has a high speech content, the priority code words could be those code words which represent lower spectral values, since in this case the important spectral information is located in the low region of the spectrum. If an audio signal has a group of tones in the middle region of the spectrum the priority code words could be those code words which are assigned to the spectral values in the corresponding middle section of the frequency range, since these are then the psychoacoustically important spectral values. Psychoacoustically important spectral values might also be spectral values whose magnitude, i.e. signal energy, is large compared with that of other spectral values in the